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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Patent Application No. 10/785,391

Applicant: Raymond Bass

Filed: February 24, 2004

TC/AU: 3742

Examiner: Philip H. Leung

Docket No.: 334-1045 CON (504031)

Customer No.: 23626

**TRANSMITTAL OF  
APPELLANT'S AMENDED APPEAL BRIEF**

Mail Stop Appeal Brief – Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In accordance with 37 CFR 41.37, appellant hereby submits Appellant's Amended Brief on Appeal.

The items checked below are appropriate:

**1. Status of Appellant's**

This application is on behalf of ☐ other than a small entity or ☒ a small entity.

**2. Fee for Filing Brief on Appeal**

Pursuant to 37 CFR 41.20(2), the fee for filing the Amended Appeal Brief is for: ☐ other than a small entity or ☒ a small entity.

**Brief Fee Due** \$0.00

**3. Oral Hearing**

☐ Appellants request an oral hearing in accordance with 37 CFR 41.47.  
A separate paper requesting oral hearing is attached.

**4. Extension of Time**

☐ Appellants petition for a one-month extension of time under 37 CFR 1.136, the fee for which is \$ 0.00.  
☐ Appellants believe that no extension of time is required. However, this conditional petition is being made to provide for the possibility that appellants have inadvertently overlooked the need for a petition and fee for extension of time.

Extension fee due with this request: \$

**5. Total Fee Due**

The total fee due is:

Brief on Appeal Fee	\$ 0.00
Request for Oral Hearing	\$ 0.00
Extension Fee (if any)	\$ 0.00

**Total Fee Due: \$0.00****6. Fee Payment**

- ☐ Attached is a check in the sum of \$  
☒ No fee is owed by the applicant(s).

**7. Fee Deficiency.**

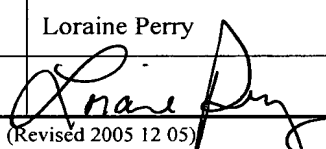
- ☒ If any additional fee is required in connection with this communication, charge Account No. 12-1216. (A duplicate copy of this transmittal is attached for that purpose.)

Respectfully submitted,



Li-Chung D. Ho, Reg. No. 41,837  
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Date: September 1, 2006

MAILING/TRANSMISSION CERTIFICATE UNDER 37 CFR 1.8 OR 1.10			
I hereby certify that this document and all accompanying documents are, on the date indicated below, being <input type="checkbox"/> deposited with the U.S. Postal Service using "Express Mail" service in an envelope addressed in the same manner indicated on this document with Express Mail Label Number <input type="checkbox"/> deposited with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed in the same manner indicated on this document, or <input type="checkbox"/> facsimile transmitted to the U.S. Patent and Trademark Office at fax number: (571) 273-8300.			
Name (Print/Type)	Loraine Perry		
Signature		Date	September 1, 2006

Appeal Brief Transmittal (Revised 2005 12 05)

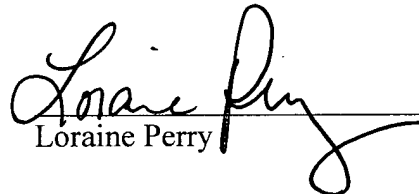


334-1045 CON (504031)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: RAYMOND BASS )  
Serial No.: 10/785,391 )  
Filed: February 24, 2004 ) Art Unit: 3742  
TITLE: PORTABLE STRIPPING HEAD )  
INDUCTION HEATING SYSTEM FOR )  
STRIPPING COATING AND LINED )  
METAL OBJECTS AND SURFACES AND )  
METHODS FOR STRIPPING COATED )  
METAL OBJECTS AND SURFACES )  
Examiner: Philip H. Leung

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313, on September 1, 2006.

  
Loraine Perry

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313  
ATTENTION: Board of Patent Appeals and Interferences

APPLICANT'S AMENDED BRIEF

Sir:

This amended brief is filed under 37 CFR 41.37(d) to correct the deficiencies in the original brief as set forth in the Notification of Non-Compliant Appeal Brief, dated August 3, 2006.

I. REAL PARTY IN INTEREST

The real party in interest in this appeal is the party named in the caption of this brief.

## II. RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal, there are no such appeals or interferences.

## III. STATUS OF CLAIMS

### A. TOTAL NUMBER OF CLAIMS IN APPLICATION

Claims in the application are 1-10.

### B. STATUS OF ALL CLAIMS

1. Claims cancelled: 4
2. Claims withdrawn from consideration but not canceled: None
3. Claims pending: 1-3 and 5-10
4. Claims allowed: None
5. Claims rejected: 1-3 and 5-10

### C. CLAIMS ON APPEAL

The claims on appeal are 1-3 and 5-10.

## IV. STATUS OF AMENDMENTS

There are no amendments filed subsequent to the final rejection.

## V. SUMMARY OF CLAIMED SUBJECT MATTER

### A. Independent Claim 1.

An induction heating system 10 comprising an electrical power supply 12, first electrical lead means 14, capacitor means 16, secondary lead means 18, and stripping head means 20,22,24. (Para. 27, Fig. 1-4.) The first electrical lead means 14 is electrically attached to the electrical power supply 12. (Fig. 1.) The first electrical lead means 14 is for conducting electrical power from the electrical power supply 12 to the capacitor means 16. (Fig. 1.) The capacitor means 16 is spaced from the power supply 12 and is electrically connected to the first electrical lead means 14. (Para. 32, Fig. 1). The secondary lead means 18 is electrically connected to the capacitor means 16. (Para. 32, Fig. 1). The secondary lead means 18 is for conducting electrical currents to or from the capacitor means 16. (Fig. 1.) The stripping head means 20,22,24 includes an electrically conductive coil member electrically connected to the secondary lead means 18. (Para. 33-35, Figs. 1-4).

Figure 1 of the present application is reproduced below:

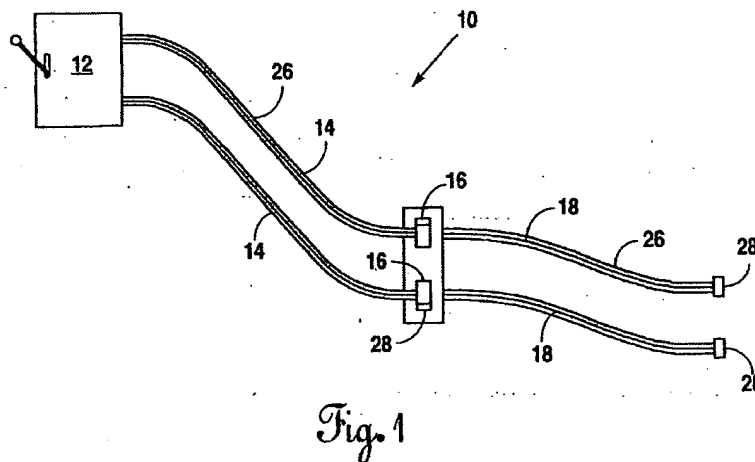


Figure 1 of the Present Application.

B. Independent Claim 2.

An induction heating system 10 comprising an electrical power supply 12, first and second primary leads 14, first and second capacitors 16, first and second secondary leads 18, and stripping head means 20,22,24. (Para. 27, Fig. 1-4.) The first and second primary leads 14 are electrically connected to the power supply. (Fig. 1.) The first and second primary leads 14 are constructed of elongate, flexible electrical cable. (Para. 31.) The first and second capacitors 16 are spaced from the power supply 12 and are electrically connected, respectively, to the first and second primary leads 14. (Para. 32, Fig. 1.) The first and second secondary leads 18 are electrically connected, respectively, to the first and second capacitors 16. (Para. 32, Fig. 1.) The first and second secondary leads 18 are constructed of elongate, flexible electrical cable. (Para. 31.) The stripping head means 20,22,24 are electrically connected to the first and second secondary leads 18. (Para. 33-35, Figs. 1-4.)

C. Independent Claim 3.

A method for heating metallic items for loosening coatings or protective layers adhered thereto comprising the step of selecting an induction heating system 10. The induction heating system 10 comprising an electrical power supply 12, first electrical lead means 14, capacitor means 16, secondary lead means 18, stripping head means 20,22,24. (Para. 27, Fig. 1-4.) The first electrical lead means 14 is electrically attached to the electrical power supply. (Fig. 1.) The first electrical lead means 14 is for conducting electrical power from the electrical power supply 12 to the capacitor means 16. (Fig. 1.) The capacitor means 16 is spaced from the power supply 12 and is electrically connected to the first electrical lead means 14. (Para. 32, Fig. 1.) The secondary lead means 18 is electrically connected to the capacitor means 16. The secondary lead

means 18 is for conducting electrical currents to or from the capacitor means 16 (Fig. 1). The stripping head means 20,22,24 includes an electrically conductive coil member electrically connected to the secondary lead means 18. (Para. 33-35, Figs. 1-4.)

The method further comprises the steps of juxtaposing in the stripping head means 20,22,24 to a metallic item to which is adhered to-be-removed coating or protective layer, actuating the electrical power supply 12, and maintaining the stripping head means 20,22,24 in juxtaposition with the metallic item for a time sufficient to heat the metallic item and loosen said coating or protective layer from said metallic item. (Para. 37).

#### D. Independent Claim 5.

An induction heating system 10 for stripping material from a metal surface comprising an electrical power supply 12, primary electrical leads 14, a capacitor 16, secondary electrical leads 18, a moveable stripping head 20,22,24. (Para. 27, Fig. 1-4.) The primary electrical leads 14 are electrically attached to the electrical power supply 12 and extending therefrom. (Fig. 1.) The capacitor 16 is spaced from the power supply arrangement 12 and is electrically connected to the primary electrical leads 14. (Para. 32, Fig. 1.) The secondary electrical leads 18 are electrically connected to the capacitor arrangement 16 and extending therefrom. (Fig. 1.) The moveable stripping head 20,22,24 includes an electrically conductive coil member electrically connected to the secondary leads 18. (Para. 33-35, Figs. 1-4.) The leads 14,18 are of a length to permit use of the head 20,22,24 in a location remote from the power supply 12. (Para. 31.)

E. Dependent Claim 8.

An induction heating system 10 as claimed in claim 5 wherein the length of the secondary leads 10 from the capacitor arrangement 16 to the stripping head 20,22,24 is twenty-five percent (25%) of the length of the primary leads 14 from the capacitor arrangement 16 to the power supply 12. (Para. 31.)

F. Dependent Claim 9.

An induction heating system 10 as claimed in claim 5 wherein the length of the secondary leads 18 is at least 20 feet. (Para. 31.)

G.. Dependent Claim 10.

An induction heating system 10 as claimed in claim 9 wherein the length of the primary leads 14 is at least 80 feet. (Para. 31.)

## VI. GROUNDS OF REJECTION TO BE REVIEWED

Whether claims 1-3 and 5-10 are unpatentable under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 5,660,753 to Lingnau ("Lingnau") in view of U.S. Patent No. 5,837,976 to Loveless et al. ("Loveless").

## VII. ARGUMENT

Claims 1-3 and 5-10 are rejected under 35 U.S.C. 103(a) as being obvious over Lingnau in view of Loveless. Claims 1-3 and 5-10 are allowable for at least the following reasons.



A. Neither Lingnau nor Loveless discloses capacitor(s) spaced from the power supply.

Independent claims 1 and 3 recite in part “capacitor means spaced from said power supply.” Independent claim 2 recites in part “first and second capacitors spaced from said power supply.” Independent claim 5 recites in part “a capacitor spaced from said power supply.”

Lingnau does not explicitly show a capacitor. The Examiner admitted to such on page 2 of the January 10, 2006 Office Action (“[Lingnau] does not explicitly shows [sic] the circuit of the power supply with the use of capacitors (see Figures 1, 2 and 4 and col. 2, line 38 - col. 5, line 45).”).

Loveless does not disclose capacitor(s) spaced from the power supply. Loveless discloses capacitors to form a resonant circuit in the induction heating coil. The capacitors illustrated in Figs. 4a and 4b are, however, associated with the respective power supply. As confirmed in Figs. 5 and 8, the capacitors are within the power supply apparatus 74, 76, 116, 118, 120, 122 and not spaced from it as claimed in the pending claims. Figures 5 and 8 of Loveless are reproduced below:

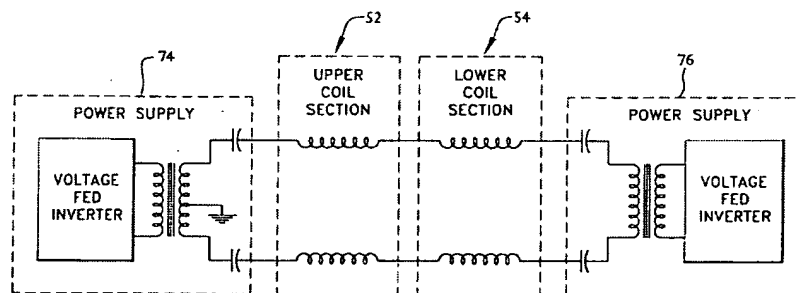


FIG. 5  
Figure 5 of Loveless.

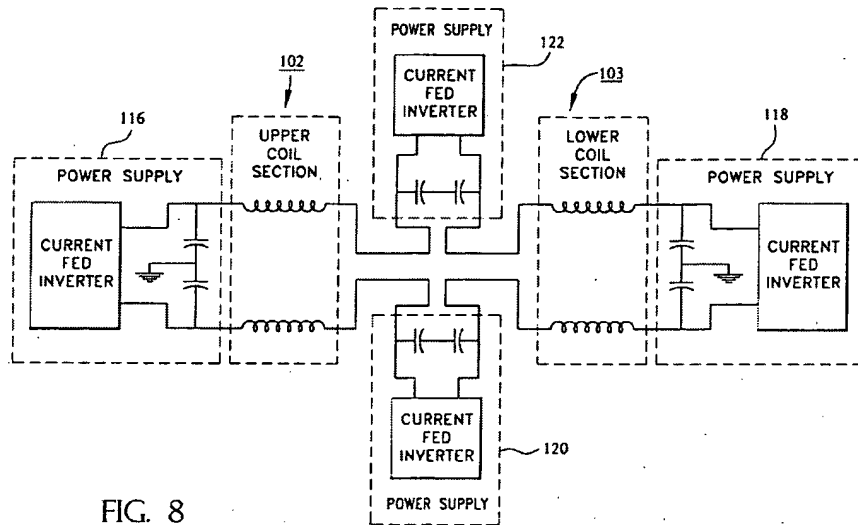


FIG. 8

Figure 8 of Loveless.

Neither Lingnau nor Loveless discloses or suggests capacitor(s) spaced from the power supply. Hence claims 1-3, 5 and their dependent claims are patentable over the cited prior art references.

B. Claim 8 is further distinguished from Lingnau and Loveless.

Claim 8 includes the additional recitation “the length of said secondary leads from said capacitor arrangement to said stripping head is twenty-five percent (25%) of the length of said primary leads from said capacitor arrangement to said power supply.”

In making his rejection that claim 8 is unpatentable, the Examiner asserts on page 3 of the Office Action:

“In regard to claims 6-10, the exact power, frequency and the length of the cable would have been a matter of engineering expediency depending on the overall load characteristics and the available cost.”

Rejection based on 35 U.S.C. § 103 must rest on a factual basis. In making such a rejection, the Examiner has the initial duty of supplying the requisite factual basis and may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. *In re Warner*, 379 F.2d

1011, 1017, 154 USPQ 173, 177-178 (CCPA 1968), *cert. den'd*, 389 U.S. 1057 (1968). To draw on hindsight knowledge of the claimed invention, when the prior art references do not contain or suggest that knowledge, is to use the invention as template for its own construction. The invention must be viewed not after the blueprint has been drawn by the inventor, but as it would have been perceived in the state of the art that existed at the time the invention was made.

*Sensonics, Inc. v. Aerosonic Corp.*, 81 F.3d 1566 (Fed. Cir. 1996).

Neither Lingnau nor Loveless discloses or suggests the length of the secondary leads from the capacitor arrangement to the stripping head is twenty-five percent (25%) of the length of the primary leads from the capacitor arrangement to the power supply. Without impermissible hindsight using the teaching of the present application, a person of ordinary skill in the art would not have arrived at the claimed invention. Hence claim 8 is patentable over the cited prior art references.

C. Claim 9 is further distinguished from Lingnau and Loveless.

Claim 9 includes the additional recitation “the length of said secondary leads is at least 20 feet.”

Neither Lingnau nor Loveless discloses or suggests the length of the secondary leads is at least 20 feet. Without impermissible hindsight using the teaching of the present application, a person of ordinary skill in the art would not have arrived at the claimed invention. Hence claim 9 is patentable over the cited prior art references.

D. Claim 10 is further distinguished from Lingnau and Loveless.

Claim 10 includes the additional recitation “the length of said primary leads is at least 80 feet.”

Neither Lingnau nor Loveless discloses or suggests the length of the primary leads is at least 20 feet.” Without impressive hindsight using the teaching of the present application, a person of ordinary skill in the art would not have arrived at the claimed invention. Hence claim 10 is patentable over the cited prior art references.

## VIII. APPENDIX OF CLAIMS

1. An induction heating system comprising:
  - an electrical power supply;
  - first electrical lead means electrically attached to said electrical power supply, said first electrical lead means for conducting electrical power from said electrical power supply to capacitor means;
  - capacitor means spaced from said power supply electrically connected to said first electrical lead means;
  - secondary lead means electrically connected to said capacitor means, said secondary lead means for conducting electrical currents to or from said capacitor means;
  - stripping head means including an electrically conductive coil member electrically connected to said secondary lead means.
2. An induction heating system comprising:
  - an electrical power supply;
  - first and second primary leads electrically connected to said power supply, said first and second primary leads being constructed of elongate, flexible electrical cable;
  - first and second capacitors spaced from said power supply electrically connected, respectively, to said first and second primary leads;

first and second secondary leads electrically connected, respectively, to said first and second capacitors, said first and second secondary leads being constructed of elongate, flexible electrical cable; and

stripping head means electrically connected to said first and second secondary leads.

3. A method for heating metallic items for loosening coatings or protective layers adhered thereto comprising the steps of:

selecting and induction heating system comprising:

an electrical power supply;

first electrical lead means electrically attached to said electrical power supply, said first electrical lead means for conducting electrical power from said electrical power supply to capacitor means;

capacitor means spaced from said power supply electrically connected to said first electrical lead means;

secondary lead means electrically connected to said capacitor means, said secondary lead means for conducting electrical currents to or from said capacitor means;

stripping head means including an electrically conductive coil member electrically connected to said secondary lead means;

juxtaposing in said stripping head means to a metallic item to which is adhered to-be-removed coating or protective layer;

actuating said the electrical power supply;

maintaining said stripping head means in juxtaposition with said metallic item for a time sufficient to heat said metallic item and loosen said coating or protective layer from said metallic item.

5. An induction heating system for stripping material from a metal surface comprising:
  - an electrical power supply;
  - primary electrical leads electrically attached to said electrical power supply and extending therefrom;
  - a capacitor spaced from said power supply arrangement electrically connected to said primary electrical leads;
  - secondary electrical leads electrically connected to said capacitor arrangement and extending therefrom; and
  - a moveable stripping head including an electrically conductive coil member electrically connected to said secondary leads, said leads being of a length to permit use of said head in a location remote from said power supply.
6. An induction heating system as claimed in claim 5 wherein said power supply is 75 KW, 10 KHz frequency and 480 volts.
7. An induction heating system as claimed in claim 6 wherein said capacitor arrangement is 450 KVAR (10,000 cycles per second).
8. An induction heating system as claimed in claim 5 wherein the length of said secondary leads from said capacitor arrangement to said stripping head is twenty-five percent (25%) of the length of said primary leads from said capacitor arrangement to said power supply.
9. An induction heating system as claimed in claim 5 wherein the length of said secondary leads is at least 20 feet.
10. An induction heating system as claimed in claim 9 wherein the length of said primary leads is at least 80 feet.

## IX. EVIDENCE APPENDIX

Attached as EVIDENCE APPENDIX are copies of:

- Final Office Action dated January 10, 2006.
- U.S. Patent No. 5,660,753 to Lingnau ("Lingnau").
- U.S. Patent No. 5,837,976 to Loveless et al. ("Loveless").

## X. RELATED PROCEEDING APPENDIX

None.

A reconsideration and allowance of the claims of this application are respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Li-Chung Daniel Ho".

Li-Chung Daniel Ho  
Registration No. 41,837

September 1, 2006  
Leydig, Voit & Mayer, Ltd.  
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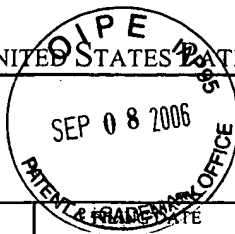
## **EVIDENCE APPENDIX**



334-1045-60A



## UNITED STATES PATENT AND TRADEMARK OFFICE


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 Alexandria, Virginia 22313-1450  
 www.uspto.gov

APPLICATION NO.	FILED DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,391	02/24/2004	Raymond Bass	INDUCTION2-CONT	6526

2574 7590 01/10/2006

 JENNER & BLOCK, LLP  
 ONE IBM PLAZA  
 CHICAGO, IL 60611

EXAMINER

LEUNG, PHILIP H

ART UNIT

PAPER NUMBER

3742

 To: LP2  
504031, Salco  
 LVM

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**FINAL**
**KAS**
**LAH**

 LEYDIG, VOIT & MAYER  
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FEB 24 2006

 PAY/TM Due Date 4-10-06
7-10-06 final  
& Notice of Appeal
**RECEIVED**

JAN 17 2006

JENNER &amp; BLOCK LLP



## Office Action Summary

Application No.

10/785,391

Applicant(s)

BASS, RAYMOND

Examiner

Philip H. Leung

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**FINAL**

LEYDIG, VOIT & MAYER  
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FEB 24 2006

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

4-10-06  
7-10-06 final +  
notice of  
appeal

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

LAI  
KAS

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 and 5-10 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Lingnau (US 5,660,753), in view of Loveless et al (US 5,837,976) (all previously cited).

Lingnau discloses the claimed invention of an induction heating stripping device for removing coating bonded to a metal surface including electrical leads 22 and stripping head 20. It does not explicitly show the circuit of the power supply with the use of capacitors (see Figures 1, 2 and 4 and col. 2, line 38 - col. 5, line 45). However, Loveless shows that it is well known in the art of induction heating devices that it is essential to use capacitors to form a resonance circuit with the heating inductor to induce current to the work load to provide induction heating. It shows the use of a capacitor 92, 94 between each lead to the power supply 86 and each lead to the inductor 96 forming series resonant circuits. The capacitors 92 and 94 are clearly spaced from the inverter 86 by the transformer 88 and the lead wires and definitely the commercial power source (see Figures 4B, 5 and 8 and col. 4, line 66 – col. 5, line 65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Lingnau to include capacitors in order to form a series resonant tank circuit with the heating inductor to produce induction heating at resonance for better heating efficiency and result, in view of the teaching of Loveless. In regard to claims 6-10, the exact power, frequency

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and the length of the cable would have been a matter of engineering expediency depending on the overall load characteristics and the available cost.

3. Applicant's arguments filed 10-26-2005 have been fully considered but they are not persuasive. The argument that Loveless (US 5,837,976) does not show that the capacitors are "spaced from said power supply" as now claimed is not well taken. At the outset, all that being claimed as the power supply is "an electrical power supply" that may be merely the commercial power source which of course, spaced from all the electrical devices. Secondly, even if the capacitors 92, 94 and the voltage inverter 86 as shown in Figure 4b are in a single housing, they are still spaced and separated from each other by the transformer 88 and the wires. Most importantly, it is seen as a matter of engineering expediency to determine the relative location of the electrical elements between the power supply and the other electrical elements depending on the types of heating application. Applicant has not provided any criticality for the spacing.

It is noted that the amendment to claim 8 has removed the issue noted in paragraph 3 of the previous Office action. However, it is respectfully suggested to also delete "at least" from claims 9 and 10 so that the limitations in these claims are consistent with the description on page 11 of the specification.

Art Unit: 3742

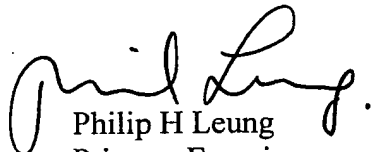
4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip H Leung whose telephone number is (571) 272-4782. The examiner can normally be reached on flexible.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Philip H Leung  
Primary Examiner  
Art Unit 3742

P.Leung/pl  
1-6-2006